UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,216	06/25/2003	Srinivasa MPR	14950US01	3721

23446 7590 12/22/2006
MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER	
WONG, ALLEN C	
ART UNIT	**PAPER NUMBER**
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/606,216	MPR ET AL.	
	Examiner	Art Unit	
	Allen Wong	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-15 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 6/25/03 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Claim 13 cannot depend on itself. Thus, applicant needs to choose what claim 13 depends on.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 13 cannot depend on itself. Thus, claims 13-14 are improper and indefinite.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5, 7, 9, 11, 12 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ozcelik (5,903,311).

Regarding claim 1, Ozcelik discloses a method for displaying frames, said method comprising: displaying a first portion of a frame (col.12, ln.19-34; Ozcelik discloses that the first portion, ie. top field, is displayed for a frame); and writing a second portion of the frame while displaying the first portion of the frame (col.12, ln.19-41; Ozcelik discloses the second portion, ie. bottom field, of the frame is written or buffered for storage while the first portion, ie. top field, is displayed).

Regarding claims 3 and 9, Ozcelik discloses wherein writing the second portion of the frame further comprises: decoding the second portion of the frame (col.12, ln.19-24).

Regarding claims 5 and 11, Ozcelik discloses further comprising: displaying the second portion of the frame responsive to displaying the first portion of the frame (col.12, ln.19-34); and overwriting the first portion of the frame with a first portion of another frame while displaying the second portion of the frame (col.12, ln.1-18; note use of motion compensation to obtain the B-frame from data of the reference frame data I and P frames).

Regarding claim 7, Ozcelik discloses a circuit for displaying frames, said circuit comprising: a memory for storing a first portion of a frame (col.12, ln.35-41; Ozcelik discloses that the frame memory 514C has a capacity to store 0.53x, where the first portion, ie. top field, is stored in 0.03x capacity of the frame memory 514C); a display engine for displaying the first portion of the frame (col.12, ln.19-34; Ozcelik discloses

that the first portion, ie. top field, is displayed for a frame); and a controller for writing a second portion of the frame in the memory, while the display engine displays the first portion (col.12, ln.19-41; Ozcelik discloses the second portion, ie. bottom field, of the frame is written or buffered for storage while the first portion, ie. top field, is displayed).

Regarding claim 12, Ozcelik discloses wherein the memory further comprises: a first prediction frame buffer for storing a first prediction frame (fig.5, element 514B); a second prediction frame buffer for storing a second prediction frame (fig.5, element 514C); and a delta frame buffer for storing the first portion of the frame and the second portion of the frame (col.12, ln.19-41, note there is 0.03x capacity of the frame buffer 514C dedicated to storing the first portion, ie. top field, and 0.5x capacity of the frame buffer 514C dedicated to storing the second portion, ie. bottom field, so delta frame buffers are implemented).

Regarding claim 15, Ozcelik discloses an integrated circuit for storing decoded frames, said integrate circuit comprising: a first prediction frame buffer for storing a first frame (fig.5, element 514A); a second prediction frame buffer for storing a second frame (fig.5, element 514B); and a delta frame buffer for storing a portion of a third frame (col.12, ln.19-41, note element 514C stores the third frame, and there is 0.03x capacity of the frame buffer 514C dedicated to storing the first portion, ie. top field, and 0.5x capacity of the frame buffer 514C dedicated to storing the second portion, ie. bottom field, so delta frame buffers are implemented).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2, 4, 6, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311).

Regarding claims 2, 4, 6, 8 and 10, Ozcelik does not specifically disclose the use of third and fourth portions of a frame. However, Ozcelik teaches the use of a subpicture decoder (col.7, ln.45-64, Ozcelik discloses that element 420 of figure 4 is a subpicture decoder used to decode multiple subpicture portions of image data within a frame for decoding images utilized in DVD applications). Therefore, it would have been obvious to one of ordinary skill in the art to appropriately modify Ozcelik's invention for utilize frame data in that the frame data can be subdivided into multiple portions of image data or as desired or needed like displaying DVD imaging applications, etc.

Claims 13, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311) in view of Sun (5,247,363).

Regarding claims 13, 14, 16 and 17, Ozcelik discloses the frames are stored in buffers no more than the size of 4 megabytes (col.4, ln.55-57, note 3X or approximately 3 megabytes is needed for buffering the frame data, where X is 1,036,800 bits or approximately 1 megabyte, to store frame data). Ozcelik does not

specifically disclose the use of high definition television frames. However, Sun teaches the use of high definition television frames (col.3, ln.40-56). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Sun, as a whole, for accurately, efficiently produce high quality, high definition images for viewing on a display (Sun col.2, ln.16-19).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Groody can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Allen Wong
Primary Examiner
Art Unit 2621

AW
12/20/06